



A new approach to evaluating PES program design

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OVERVIEW

- Most PES programs share a set of common characteristics:
 - At least one buyer and one seller
 - A well defined ecosystem service, provided continuously
 - An exchange of something of value
- But implementation of these basic rules varies dramatically
- How do we understand which differences matter?

OVERVIEW

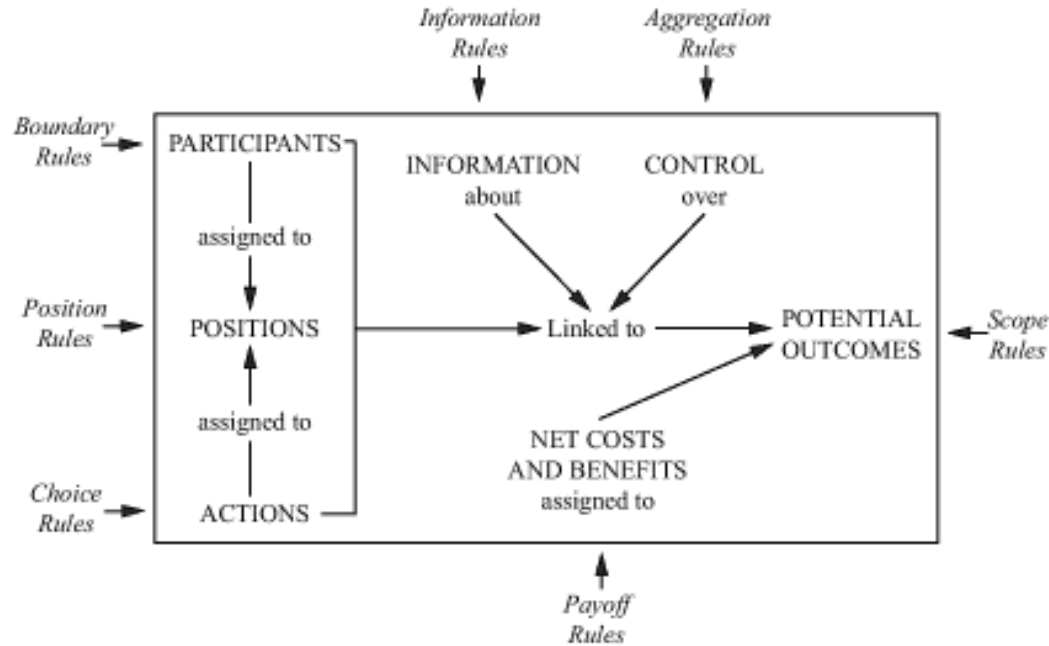
- Different perspectives/ approaches to evaluation of PES design
- How can we understand the structure of a program?
- Diagnosing problems and gaps in program design



Approaches to evaluation

- Focus on outcomes
 - Does a program achieve its intended goals?
 - Was the cost of achieving goals reasonable?
 - What were the effects on other resources?
- Focus on design
 - Does a program show good “fit” to a problem?
 - Biophysical fit to the problem
 - Alignment with community attributes
 - Rules match the goals

Institutional Analysis



Source: Ostrom 2005

Rules Types

- Position
- Choice
- Boundary
- Information
- Aggregation
- Payoff
- Scope

The AIM component of each type of rule

<i>Type of rule</i>	<i>Basic AIM verb</i>	<i>Regulated component of the action situation</i>
Position	Be	Positions
Boundary	Enter or leave	Participants
Choice	Do	Actions
Aggregation	Jointly affect	Control
Information	Send or receive	Information
Payoff	Pay or receive	Costs/Benefits
Scope	Occur	Outcomes

Identifying Rules

- ***Unit of Observation:***
No person shall engage in a major regulated project unless the Department has issued an approved stormwater management plan (SWMP) for the project.
- ***Parsed Statement:***
Attribute: Any person
Deontic: shall
aIm: engage in a major regulated project
Condition: unless the Department has issued ...
Or Else: N/A
- ***Rule type:***
Boundary – sets conditions on who may develop a project (entry rule)

Why Use Fit to Study PES?

- Definition implies the need for specific rule types in all cases, e.g. strong position and boundary rules
- Most proponents advocate collaborative design and administration





Identifying Fit in PES Design

- Identify case studies of PES programs, with a focus on water quality
- Classify rules of each program by type/function
- Comparative analysis to evaluate the impact of rule diversity on outcomes -> does fit matter?



Identifying Fit in PES Design

- Collected data on 21 water quality trading programs in the US and Australia
- Identified 2,218 rules across all programs
- 105 rules average, high of 244, low of 34

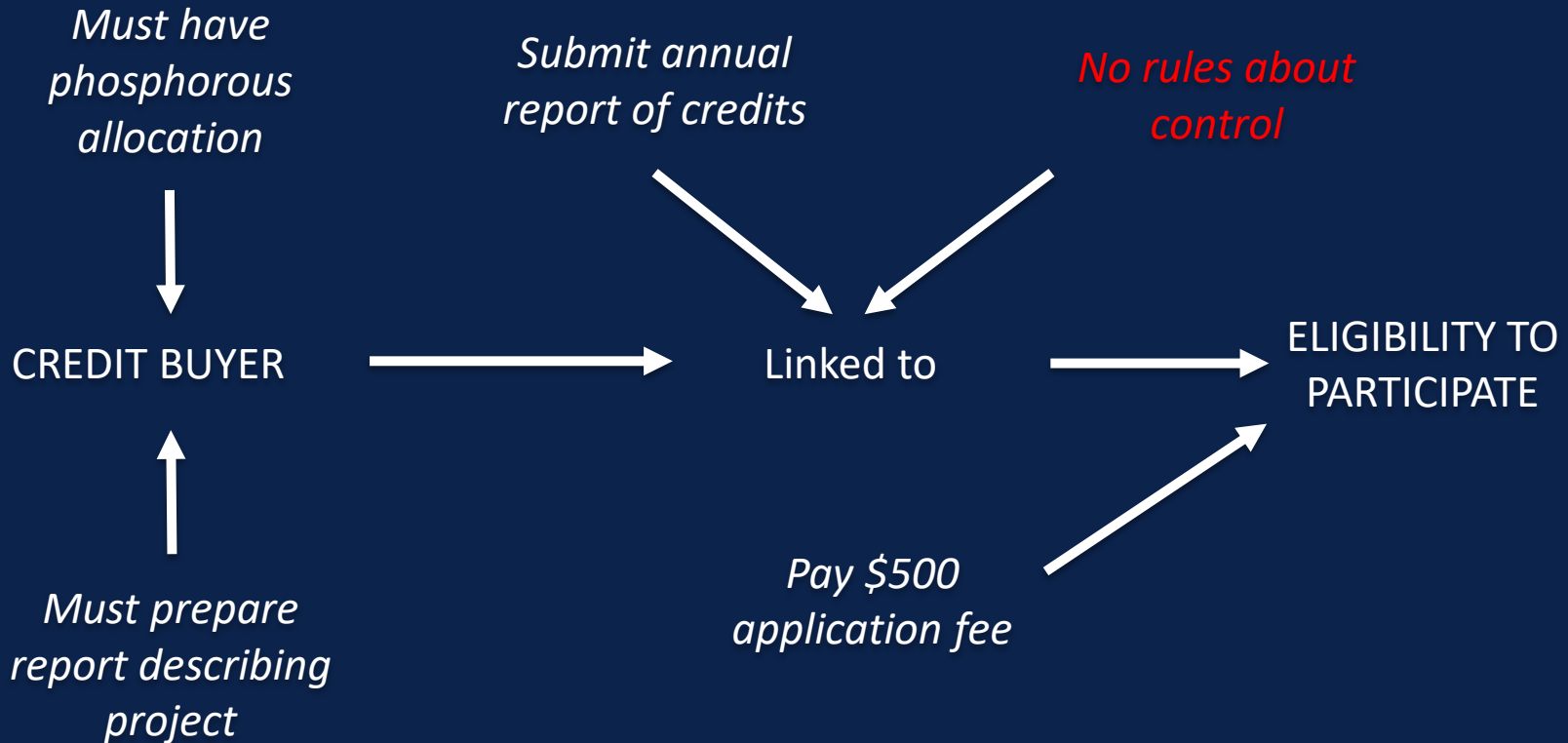
Studying PES Institutions

Water quality trading institutions analyzed and rule counts								
Name	Successful?	Rule Totals						
		Position	Boundary	Choice	Ag.	Info	Payoff	Scope
Case 1	Yes	6	31	48	1	23	24	7
Case 2	Yes	6	8	43	2	20	6	17
Case 3	Yes	14	17	49	0	42	16	14
Case 4	No	1	28	25	1	6	16	4
Case 5	No	0	19	10	0	14	5	1
Case 6	No	1	22	38	0	6	22	4

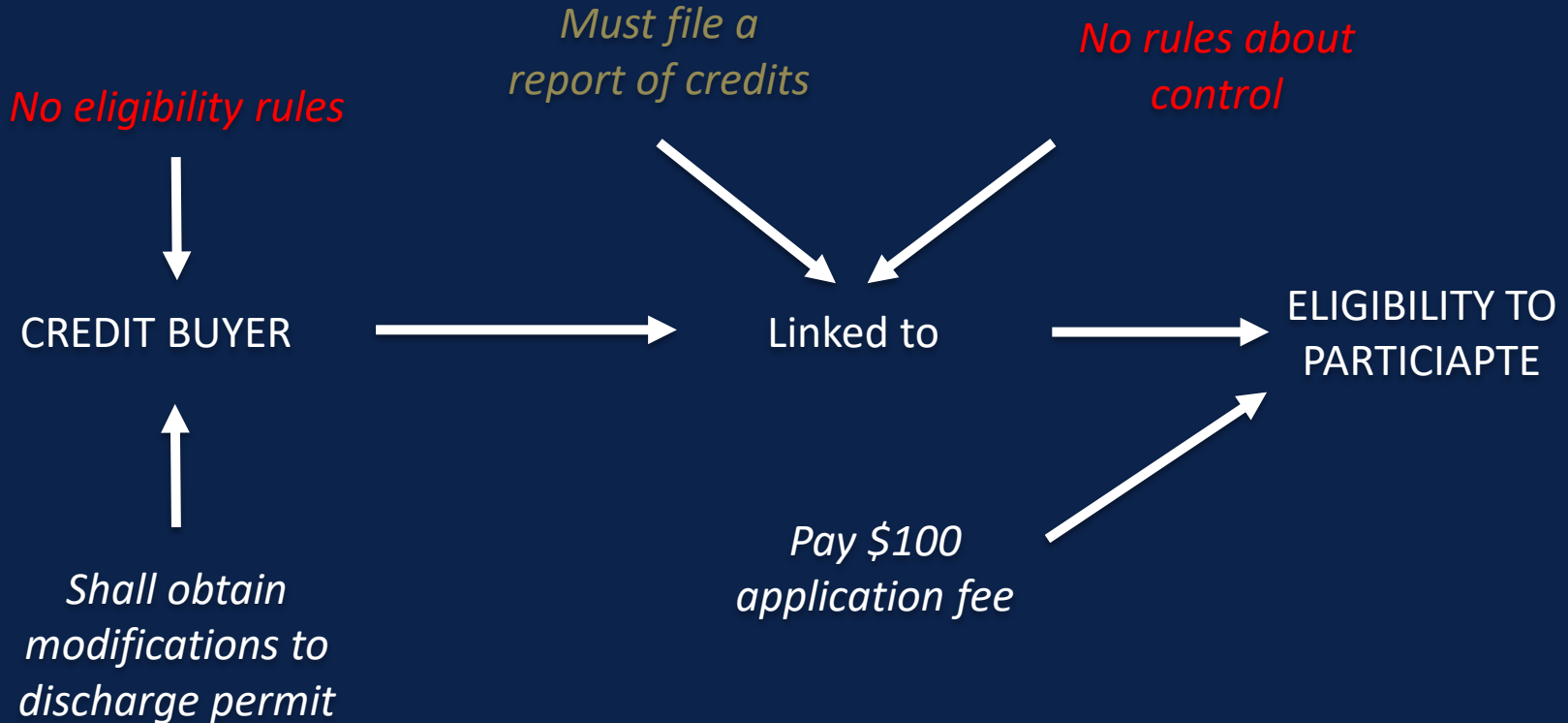
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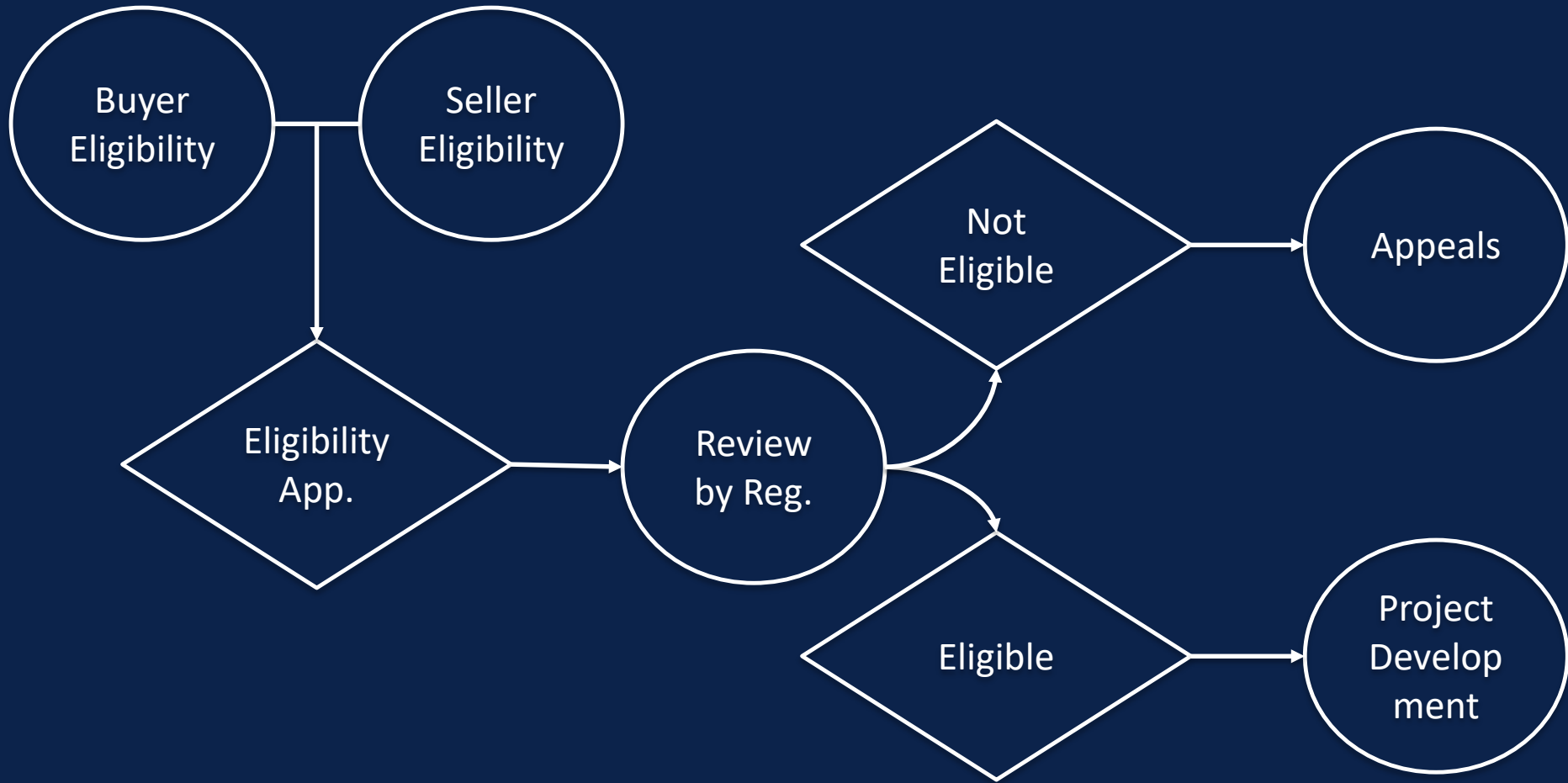
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Identifying Fit in PES Design



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Thank You!

Questions?

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